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| EXAMINER |
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NGUYEN, PHUNG HOANG JOSEPH

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2614

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--|-----------------------------------|--|
| Office Action Summary | Application No. 10/599,088 | Applicant(s) CHU ET AL. | |
| | Examiner PHUNG-HOANG J. NGUYEN | Art Unit 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections Improper Dependent Claim

1. Claims 3, 7, 14 and 18 are objected to under 37 CFR 1.75(c), MPEP ¶ 7.36 Objection, as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. (Please read the Improper Dependent Claim section in light of the 112 rejection below). Examiner notices appropriate correction to independent claims 1 and 12 would cure the deficiencies of the claim objection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 12 recite “at least one of: sending first information”... and “receiving second information...” This leaves choice for the ordinary skilled artisan to select either. However, if second choice “receiving second information...” is selected and leave out the first choice, it would make no sense for claim analysis and interpretation. How does the applicant arrive to second information without first information? Furthermore, if an ordinary skilled artisan sends first information to a destination, should the destination receive the first information first (and

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not second information first)? And furthermore, if a destination received a second information, what exactly happens to the first information? Claims 2-11 and 13-22 are rejected for being depending on rejected claims 1 and 12. Appropriate correction/clarification is substantially required in claim drafting, claim presentation and logic of the claim as well.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-22 are rejected under 35 U.S.C. 101 for claiming the non-statutory subject matter of a computer program. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1754 (claim to a data structure per se held nonstatutory). Therefore, since the claimed programs are not tangibly embodied in a physical medium and encoded on a computer-readable medium then the Applicants has not complied with 35 U.S.C 101.

Claims 1 and 12 recites “one or more local functions” and “one or more remote functions”. For the ordinary skilled artisan, function, similar to routine, algorithm, application program, is usually referred to computer software program. As indicated, the claimed programs are not tangibly embodied in a physical medium and encoded on a computer-readable medium then the Applicants has not complied with 35 U.S.C 101.

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Subsequently, the “one or more local functions” and “one or more remote functions” become vague and leave doubt to the ordinary skilled artisan as to what technical feature it refers to. Claims 2-11 and 13-22 are rejected for being depending on rejected claims 1 and 12. Appropriate correction/clarification is substantially required in claim drafting, claim presentation and logic of the claim as well.

For the purpose of continued examination, examiner broadly interprets the claimed invention as a communication method where two communication terminals 12 (fig. 1) attempt to communicate to one another as the originating terminal is going through a plurality of nodes (fig. 3).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Segura et al (US Pat 6,246,879).

As to claims 1 and 12, Segura teaches a method of determining functions to provide at a given node forming part of a communication path (*see Abstract and fig. 1 and 2*) comprising:

- at least one of:

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- sending first information (*sends an Exchange Data Directive, Abstract; Or first node declaration message, col. line 52*) identifying at least one of:
 - one or more local functions capable of being provided to traffic in the communication path by the given node (*parameters relating to communications capabilities of the new node, col. 1, line 54*)
 - if available, one or more remote functions capable of being provided to the traffic by other nodes forming part of the communications path (*col. 1, lines 53-65, see fig. 2 for data update and exchange of cooperation, col. 3, lines 6-42*); and
- receiving second information identifying the one or more remote functions (*second node declaration message, col. line 55*);
- determining whether any of the one or more local functions should be applied to the traffic based on criteria, which defines how the one or more local and remote functions are applied by the given and other nodes and is available to the given node and other nodes (*see fig. 2 and col. 4, line 49-col. 5, line 3*).

Furthermore, Segura also teaches a communication interface; and a control system associated with the communication interface (*figs. 1 and 2 showing the exchanges interface with one another, col. 2, lines 58-62 and controlled by a series of command for defining, modifying, deleting and printing of exchange data, col. 3, lines 10-13*).

7. Claims 1-10 and 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen (US Pat 5,930,264).

As to claims 1 and 12, Nguyen teaches a method of determining functions to provide at a given node forming part of a communication path (*see Abstract and fig. 1 and 2*) comprising:

- at least one of:
 - sending first information (*switching node 112(1) generates a protocol initialization message 18, col. 5, line 8*) identifying at least one of:
 - one or more local functions capable of being provided to traffic in the communication path by the given node (*identifying the protocol and capability, col. 5, lines 12-20*); and
 - if available, one or more remote functions capable of being provided to the traffic by other nodes forming part of the communications path (*Responsive to the initialization message 18, cooperating switching nodes 112(2) – 112(3) update their matrix and send a response to 112(1) of their cooperation (or availability), col. 5, lines 20-39*); and
 - receiving second information identifying the one or more remote functions; and
- determining whether any of the one or more local functions should be applied to the traffic based on criteria, which defines how the one or more local and remote functions are applied by the given and other nodes and is available to

the given node and other nodes (*Now that each node 112 and 120 is aware of the communications protocols and capabilities supported by its cooperating nodes, an agreement can be reached as to the mutually supported protocol to be used, and appropriate control over inter-switching node communications may be effectuated, see entire cols. 5 and 6, specifically, col. 6, lines 28-33*).

Furthermore, Nguyen also teaches a communication interface; and a control system associated with the communication interface (*see fig. 3 with the Base Station Controller 124 coupling with Base Stations 128 interfacing with terminal devices 114*).

As to claims 2 and 13, Nguyen teaches applying to the traffic any of the one or more local functions, which are determined to be applied to the traffic (*See claims 1 and 12, last black round bullet. Now that each node 112 and 120 is aware of the communications protocols and capabilities supported by its cooperating nodes, an agreement can be reached as to the mutually supported protocol to be used, and appropriate control over inter-switching node communications may be effectuated, see entire cols. 5 and 6, specifically, col. 6, lines 28-33*).

As to claims 3-6 and 14-17, Nguyen teaches wherein the second information is received from at least one of the other nodes that is upstream of traffic flow, and at least one of the other nodes that is downstream of the traffic flow (*fig. 3 shows the exchanges between nodes, including source, destination and any intermediate node between the two, col. 4, lines 4-32. It implicates the upstream and downstream signal*).

Furthermore, Nguyen teaches a most proximate node upstream of traffic flow, and a most proximate node downstream of the traffic flow (*Nguyen stresses the*

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cooperation between nodes throughout his invention. As appreciated by the ordinary skilled artisan, cooperation encapsulates proximity. In other word what is the point for node X to make connection to the closest node Y if Y does not show cooperation, e.g., no matching protocol. It must look for the next cooperating node Z).

As to claims 7 and 18, see 101 rejections above and its vagueness in claim analysis.

As to claims 8 and 19, Nguyen teaches at least one of the one or more local and remote functions is associated with an attribute, which is sent or received with the one or more local and remote functions, the criteria defining how at least one of the one or more local and remote functions are applied based on the attribute (*Nguyen stresses the cooperation between nodes throughout his invention. An ordinary skilled artisan concludes that cooperation is a major attribute in Nguyen's system where each node shows willingness to make itself available to other nodes*).

As to claims 9 and 20, Nguyen teaches the traffic is voice traffic (*voice trunk, col. 4, line 16*).

As to claims 10 and 21, Nguyen teaches the given node is at least one of the group consisting of a terminal, an access point, an endpoint, a gateway, and a routing node (*see fig. 3*).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being obvious over Nguyen (US Pat 5,930,264).

As to claims 11 and 22, Nguyen does not explicitly teach certain of the one or more local functions and certain of the one or more remote functions are identical, the criteria defining selection indicia determining which of the one or more local and remote nodes is given priority.

Nguyen once again stresses the cooperation between nodes (*Now that each node 112 and 120 is aware of the communications protocols and capabilities supported by its cooperating nodes, an agreement can be reached as to the mutually supported protocol to be used, and appropriate control over inter-switching node communications may be effectuated, see entire cols. 5 and 6, specifically, col. 6, lines 28-33*). It is obvious to the ordinary skilled artisan that the node that shows the most cooperating characteristic by its attributes, e.g., matching protocol, same data rate, closest in the path, etc., is the one will have the priority.

Therefore, it would have been obvious to the ordinary skilled artisan at the time of the invention was made to add one or more steps into the teaching of Nguyen to clearly define setting priority is one of the key element in obtaining quality of service in communication.

INQUIRY

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUNG-HOANG J. NGUYEN whose telephone number is (571)270-1949. The examiner can normally be reached on Monday to Thursday, 8:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571 272 7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CURTIS KUNTZ/
Supervisory Patent Examiner, Art Unit 2614

/Phung-Hoang J Nguyen/
Examiner, Art Unit 2614